

We claim:

1. An apparatus for coupling a projection lens to a projection optical signal generating device, said apparatus comprising:

a frame portion for supporting said projection lens in alignment with said projection optical signal generation device; said frame portion forming a first and second opening at opposite ends and defining a cooling chamber between said projection lens and said projection optical signal generating device, wherein said cooling chamber is for containing a liquid; and

a plurality of contrast ribs extending from said frame's inner wall in said cooling chamber, wherein said plurality of contrast ribs extend into a substantially parallel plane to said frame's formed first and second openings.

2. The apparatus of claim 1, wherein said contrast ribs in said inner wall are rounded in shape.
3. The apparatus of claim 1, wherein said contrast ribs in said inner wall are triangular in shape.
4. The apparatus of claim 1, wherein said contrast ribs in said inner wall are rectangular in shape.
5. The apparatus of claim 1, wherein said contrast ribs are integrally formed by creating grooves in said inner wall of said frame.
6. The apparatus of claim 1, wherein said optical signal generating device comprises a cathode ray tube.

7. The apparatus of claim 1, wherein said contrast ribs and adjacent troughs cover a surface area greater than seventy-five percent of the frame's inner wall's said surface area of said frame's cooling chamber.
8. The apparatus of claim 7, wherein each of said contrast ribs are continuous around the circumference of said frame's inner wall's surface covered area.
9. The apparatus of claim 1, wherein said contrast ribs are coated with a light absorbent material.
10. The apparatus of claim 1, wherein each of said contrast rib's height extending from said frame's inner wall is substantially similar along each said contrast rib.
11. The apparatus of claim 1, wherein said contrast ribs are integrally formed during said frame's casting process.
12. The apparatus of claim 1, wherein said contrast ribs are integrally formed by machining said frame after said frame is cast.
13. A projection system for producing an image to be displayed on a screen, comprising:
 - a projection lens;
 - a projection optical signal generating device; and
 - a coupler device comprising a frame for supporting said projection lens in alignment with said projection optical signal generation device and defining a cooling chamber between said projection lens and said projection optical signal generating device; wherein said cooling chamber is for containing a liquid;
 - wherein said frame's inner walls comprise a plurality of contrast ribs for reducing reflections of skew rays on the projection lens originating from said projection optical signal generating device.

14. The system of claim 13, wherein said contrast ribs in said inner wall are rounded in shape.
15. The system of claim 13, wherein said contrast ribs are coated with a light absorbent material.
16. The system of claim 13, wherein each of said contrast rib's height extending from said frame's inner wall is substantially similar along each said contrast rib.
17. The system of claim 13, wherein said contrast ribs and adjacent troughs cover a surface area greater than seventy-five of the frame's inner wall's said surface area of said frame's cooling chamber.
18. The system of claim 17, wherein each of said contrast ribs are continuous around the circumference of said frame's inner wall's surface covered area.
19. A coupler for coupling a projection lens to a projection optical signal generating device manufactured by a process, said coupler comprising a frame for supporting said projection lens in alignment with said projection optical signal generation device and defining a liquid cooling chamber between said projection lens and said light signal generation device, the manufacturing process steps comprising:
- casting an aluminum alloy to form said frame; and
 - forming a plurality of contrast ribs by creating grooves covering substantially all of said frame's inner surface walls for reducing reflections of skew rays on said projection lens.
20. The apparatus of claim 19, wherein each of said contrast rib's height extending from said frame's inner wall is substantially similar along each said contrast rib.